

DOCKET NO. D-1974-039 CP-7

DELAWARE RIVER BASIN COMMISSION

**Borough of South Coatesville
Wastewater Treatment Plant
Borough of South Coatesville, Chester County, Pennsylvania**

PROCEEDINGS

This docket is issued in response to an application submitted to the Delaware River Basin Commission (DRBC or Commission) on March 28, 2024 (Application), for renewal of the docket holder's existing wastewater treatment plant (WWTP) and its discharge. The Pennsylvania Department of Environmental Protection (PADEP) issued National Pollutant Discharge Elimination System (NPDES) Permit No. PA0036897 for this discharge.

The Application was reviewed for continuation of the project in the Comprehensive Plan and approval under Section 3.8 of the *Delaware River Basin Compact*. The Chester County Planning Commission has been notified of pending action. A public hearing on this project was held by the DRBC on August 7, 2024.

A. DESCRIPTION

1. **Purpose.** The purpose of this docket is to renew the approval of the docket holder's existing 0.5 million gallons per day (mgd) WWTP and its discharge.
2. **Location.** The docket holder's WWTP is located on Modena Road in the Borough of South Coatesville, Chester County, Pennsylvania. The WWTP will continue to discharge treated effluent to West Branch Brandywine Creek at River Mile 70.7 – 1.5 – 20.0 – 14.3 (Delaware River – Christine River – Brandywine Creek – West Branch Brandywine Creek).

The location of the WWTP outfall in the Brandywine Creek Watershed as follows:

OUTFALL NO.	LATITUDE (N)	LONGITUDE (W)
001	40° 31' 52"	75° 47' 12"

Specific location information has been withheld for security reasons.

3. **Area Served.** The docket holder's WWTP will continue to serve portions of the Boroughs of South Coatesville and Modena in Chester County, Pennsylvania. For the purpose of defining the Area Served, the Type of Discharge and the Service Area sections from the docket holder's Application are incorporated herein by reference, to the extent consistent with all other conditions contained in Section C. DECISION of this docket.
4. **Design Criteria.** The docket holder's existing WWTP utilizes a Sequencing Batch Reactor (SBR) treatment system process. The WWTP is designed for an annual average flow of 0.381 mgd and a maximum monthly flow of 0.5 mgd.

5. **Facilities.** The existing WWTP facilities consist of a mechanical bar screen; two SBRs capable of biological treatment, clarification, biological phosphorous removal and nitrification; a chlorine contact tank for disinfection; and post aeration provided by two air spargers located in the last channel of the chlorine contact tank. Back-up phosphorous removal is provided through a chemical feed system capable of pumping alum solution into the SBRs.

Wastewater from the Borough of South Coatesville and Modena Borough enter the plant separately at an influent metering pit at the head of the plant, the combined influent then flows to a mechanically cleaned bar screen. After passing through the screens the wastewater enters the influent wet well and is then pumped to the two biological treatment units consisting of a dual sequencing batch reactor system. Waste solids are pumped to one of the two aerated sludge holding tanks at the facility while treated wastewater flows by gravity to an intermediate triplex pumping station and conveyed to a chlorine contact tank for disinfection. A chemical precipitation system is used daily to remove any phosphorus left over from the SBR process. Treated effluent is discharged from an 18-inch outfall line into the West Branch Brandywine Creek.

The plant is planning to upgrade from chlorine contact to UV disinfection in the future. This upgrade to UV disinfection will remove the need for chlorine use at the site and allow for more efficient function during heavy rain events and high flow periods.

The existing chlorine contact tank is located in the 100-year floodplain. The WWTP facilities located in the floodplain are not located in the floodway and are flood proofed up to the flood protection elevation (one foot above the 100-year flood elevation).

Wasted sludge will continue to be hauled off-site for disposal in accordance with the NPDES Permit No. PA0036897.

6. **Water Withdrawals.** The potable water supply in the project service area is provided by a surface water diversion from the West Branch Brandywine Creek to the Rock Run Reservoir owned and operated by Pennsylvania American Water Company (PAWC) (Coatesville System). The PAWC water withdrawal is described in detail in Docket No. D-1996-016 CP-3, which was approved on December 13, 2017.

7. **NPDES Permit / DRBC Effluent Requirements.** NPDES Permit No. PA0036897 issued by the PADEP includes final effluent limitations for the project discharge of 0.5 mgd to surface waters classified by the PADEP as supporting Warm Water Fishes (WWF) and Migratory Fishes (MF). EFFLUENT TABLE C-1 included in Section C. DECISION Condition C.1. of this docket, contains effluent requirements for DRBC parameters that must be met as a condition of this approval.

8. **Relationship to the Comprehensive Plan.** The docket holder's existing WWTP was first added to the Comprehensive Plan on June 23, 1965 via Docket No. D-1965-046 CP-1, which approved the construction of the WWTP. The WWTP approval was modified as described in the following dockets:

DOCKET NO.	APPROVAL DATE	WWTP MODIFICATION
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DOCKET NO.	APPROVAL DATE	WWTP MODIFICATION
D-1973-065 CP-1	June 26, 1974	Expanded service area
D-1974-039 CP-1	April 23, 1975	WWTP upgrade/expansion
D-1974-039 CP-2	July 18, 2007	WWTP re-rate (0.365 mgd to 0.381 mgd)
D-1974-039 CP-3	March 19, 2008	Revised effluent limits
D-1974-039 CP-4	December 8, 2011	No modifications – Renewal only
D-1974-039 CP-5	December 10, 2014	No modifications – Renewal only
D-1974-039 CP-6	September 11, 2019	No modifications – Renewal only

Issuance of this docket (D-1974-039 CP-7) will continue the WWTP and its discharge in the Comprehensive Plan.

B. FINDINGS

The docket holder applied to renew approval of their existing 0.5 mgd WWTP and its discharge. No modifications to the WWTP are proposed.

According to the United States Geologic Survey's (USGS) StreamStats application, at the docket holder's WWTP discharge, West Branch Brandywine Creek has an estimated seven-day low flow with a recurrence interval of ten years (Q_{7-10}) of 9.0 mgd (14 cfs). The ratio of this low flow to the hydraulic design wastewater discharge from the 0.5 mgd WWTP is 18 to 1.

The nearest surface water intake of record for public water supply is located on the Brandywine Creek, approximately 31 River Miles downstream of the docket holder's WWTP, and is operated by the City of Wilmington.

The project does not conflict with the Comprehensive Plan and is designed to prevent substantial adverse impact on the water resources related environment, while sustaining the current and future water uses and development of the water resources of the Basin.

The effluent limits in the NPDES Permit conform with Commission effluent quality requirements, where applicable.

The project is designed to produce a discharge meeting the effluent requirements as set forth in the Commission's *Water Quality Regulations (WQR)*.

C. DECISION

Effective on the approval date for Docket No. D-1974-039 CP-7 below, the project described in Docket No. D-1974-039 CP-6 is removed from the Comprehensive Plan to the extent that it is not included in Docket No. D-1974-039 CP-7; Docket No. D-1974-039 CP-6 is terminated and replaced by Docket No. D-1974-039 CP-7; and the project and the appurtenant

facilities described in Section A “DESCRIPTION” of this docket shall be continued in the Comprehensive Plan. The project and appurtenant facilities as described in Section A of this docket are approved pursuant to Section 3.8 of the *Compact*, subject to the following conditions:

Monitoring and Reporting

1. The docket holder shall comply with the requirements contained in the EFFLUENT TABLES below. The docket holder shall submit the required monitoring results electronically to the DRBC Project Review Section via email aemr@drbc.gov on the **Annual Effluent Monitoring Report Form** located at this web address: <https://www.nj.gov/drbc/programs/project/docket-app-info.html#3>. The monitoring results shall be submitted annually, absent any observed limit violations, by January 31. If a DRBC effluent limit is violated, the docket holder shall submit the result(s) to the DRBC within 30 days of the violation(s) and provide a written explanation that states the action(s) the docket holder has taken to correct the violation(s) and protect against any future violations. The following average monthly effluent limits are among those listed in the NPDES Permit and meet or are more stringent than the effluent requirements of the DRBC.

EFFLUENT TABLE C-1: DRBC Parameters Included in NPDES Permit

OUTFALL 001 (Discharge to West Brandywine Creek)		
PARAMETER	LIMIT	MONITORING
pH (Standard Units)	6 to 9 at all times	As required by NPDES permit
Dissolved Oxygen	5.0 minimum	As required by NPDES permit
Total Suspended Solids	30 mg/l	As required by NPDES permit
Total Suspended Solids Influent	Monitor and Report	As required by NPDES permit
CBOD5	25 mg/l	As required by NPDES permit
CBOD5 (at 20° C) Influent	Monitor and Report	As required by NPDES permit
Total Dissolved Solids*	1,000 mg/l	As required by NPDES permit
Ammonia Nitrogen (5-1 to 10-31) (11-1 to 4-30)	7.0 mg/l 21.0 mg/l	As required by NPDES permit
Fecal Coliform	200 colonies per 100 ml as a geo. avg.	As required by NPDES permit

* See DECISION Condition C.3.

Other Conditions

2. Except as otherwise authorized by this docket, if the docket holder seeks relief from any limitation based upon a DRBC water quality standard or minimum treatment requirement, the docket holder shall apply for approval from the Executive Director or for a docket revision in accordance with Section 3.8 of the *Compact* and the *Rules of Practice and Procedure*.

3. The docket holder may request of the Executive Director in writing the substitution of specific conductance for TDS. The request should include information that supports the effluent specific correlation between TDS and specific conductance. Upon review, the Executive Director may modify the docket to allow the substitution of specific conductance for TDS monitoring.
4. The docket holder is responsible for timely submittal to the DRBC of a docket renewal application on the appropriate application form including the appropriate docket application filing fee (see 18 C.F.R. 401.43) at least 6 months in advance of the docket expiration date set forth below. The docket holder will be subject to late filed renewal surcharges in the event of untimely submittal of its renewal application, whether DRBC issues a reminder notice in advance of the deadline or the docket holder receives such notice. If a timely and complete application for renewal has been submitted and the DRBC is unable, through no fault of the docket holder, to reissue the docket before the expiration date below, the terms and conditions of the current docket will remain fully effective and enforceable pending the grant or denial of the application for docket approval.
5. The docket holder is permitted to treat and discharge wastewater as set forth in the Area Served Section of this docket, which incorporates by reference the Type of Discharge and Service Area sections of the docket holder's Application to the extent consistent with all other conditions of this DECISION Section.
6. In accordance with the Commission's regulations at 18 C.F.R. Part 440, the docket holder is prohibited from discharging wastewater from high volume hydraulic fracturing ("HVHF") or HVHF-related activities to waters or land within the Basin. The docket holder is further prohibited from discharging hydraulic fracturing wastewater, whether treated or untreated, from sources within or outside the Basin, without obtaining the Commission's prior review and express approval in the form of a revised docket. Violation of this or any condition of this docket approval may result in enforcement, including the risk of financial penalties, pursuant to Section 14.17 of the *Delaware River Basin Compact* and Section 2.7.8 (18 CFR 401.98) of the Commission's *Rules of Practice and Procedure*. The facility and operational records shall be available at all times for inspection by the DRBC.
7. The facility shall be operated at all times to comply with the requirements of the Commission's WQR.
8. If at any time the receiving treatment plant proves unable to produce an effluent that is consistent with the requirements of this docket approval, no further connections shall be permitted until the deficiency is remedied.
9. Nothing herein shall be construed to exempt the docket holder from obtaining all necessary permits and/or approvals from other State, Federal or local government agencies having jurisdiction over this project.
10. The docket holder shall discharge wastewater in such a manner as to avoid injury or damage to fish or wildlife and shall avoid any injury to public or private property.

- 11.** No sewer service connections shall be made to newly constructed premises with plumbing fixtures and fittings that do not comply with water conservation performance standards contained in Resolution No. 88-2 (Revision 2).
- 12.** The issuance of this docket approval shall not create any private or proprietary rights in the waters of the Basin, and the Commission reserves the right to amend, suspend or rescind the docket for cause, in order to ensure proper control, use and management of the water resources of the Basin.
- 13.** The docket holder shall be subject to applicable DRBC regulatory program fees, in accordance with duly adopted DRBC resolutions and/or regulations (see 18 CFR 401.43).
- 14.** This approval is transferable by request to the DRBC Executive Director provided that the project purpose and area served approved by the Commission in this docket will not be materially altered because of the change in project ownership. The request shall be submitted on the appropriate form and be accompanied by the appropriate fee (see 18 CFR 401.43).
- 15.** The docket holder shall request a name change of the entity to which this approval is issued if the name of the entity to which this approval is issued changes its name. The request for name change shall be submitted on the appropriate form and be accompanied by the appropriate fee (see 18 CFR 401.43).
- 16.** The Executive Director may modify or suspend this approval or any condition thereof, or require mitigating measures pending additional review, if in the Executive Director's judgment such modification or suspension is required to protect the water resources of the Basin.
- 17.** Any person who objects to a docket decision by the Commission may request a hearing in accordance with Article 6 of the *Rules of Practice and Procedure*. In accordance with Section 15.1(p) of the *Delaware River Basin Compact*, cases and controversies arising under the *Compact* are reviewable in the United States district courts.

BY THE COMMISSION

APPROVAL DATE: **September 5, 2024**

EXPIRATION DATE: **November 30, 2029**